Amendment

1. (Previously Presented) A test probe for a high-frequency device having an electronic circuit with two or more contact regions, the test probe comprising:

two or more signal probe tips, each signal probe tip having a contact surface area for contacting one of the contact regions of the device; and

a ground probe having a ground contact surface with a surface area substantially greater than the contact surface area of the one signal probe tip for contacting another one of the contact regions of the electronic circuit, wherein the ground contact surface is positioned between at least two of the signal probe tips.

2. (Original) The test probe of claim 1, wherein the contact surface area of the ground contact surface is at least ten times greater than the contact surface area of the one signal probe tip.

3. (Original) The test probe of claim 2, wherein the ground contact surface comprises two or more noncontiguous contact regions.

4. (Original) The test probe of claim 2, wherein the ground contact surface consists of a continuous contact surface.

5. (Original) The test probe of claim 1, wherein the ground probe has a non-contact surface substantially parallel to the contact surface and spaced from the contact surface of the ground probe to define a nominal characteristic impedance when the contact surface of the ground probe contacts the other one of the contact regions of the device.

6. (Original) The test probe of claim 1, further comprising a coaxial connector coupled to the signal probe tip.

7. (Previously Presented) The test probe of claim 1, wherein the device includes at least one DC contact region for receiving a DC bias input, and wherein the test probe

further comprises at least one DC bias tip for contacting the one DC contact region and providing a DC bias signal.

8. (Original) The test probe of claim 1 wherein the ground probe is removable to allow its replacement with another ground probe.

9. (Previously Presented) The test probe of claim 1, wherein the electronic circuit is mounted on a work surface and one signal probe tip has a tip axis which defines a non-right angle with the work surface.

10. (Previously Presented) A test system for testing two or more microwave devices, with each device having at least one signal port, at least one ground pad, and at least one DC input-output pad, the system comprising:

a work surface for supporting the two or more microwave devices;

a test head including:

two or more signal probe tips, each signal probe tip having a contact surface area for contacting a signal port of a first one of the microwave devices;

a first ground probe having a ground contact surface with a contact surface area substantially greater than the contact surface area of the one signal probe tip for contacting the one ground pad of the first one of the microwave devices, wherein the first ground contact surface is positioned between at least two of the signal probe tips; and

programmable means for sequentially moving the test head into alignment with each of the microwave devices on the work surface and for bringing the signal probe tip into contact with the one signal port of each microwave device and the contact surface of the first ground probe into contact with the one ground pad of each microwave device.

11. (Original) The test fixture of claim 10:

wherein the test head further comprises at least one DC probe tip for contacting the one DC-input-output pad of the first one of the microwave devices; and

wherein the test fixture further comprises a DC bias circuit coupled to the one DC probe tip.

12. (Original) The test fixture of claim 10 wherein the first ground probe is removable to allow its replacement with a second ground probe having a second ground contact surface with a second contact surface area that differs from that of the first ground probe.

13. (Original) The test fixture of claim 10, wherein the one signal probe tip has a tip axis which defines a non-right angle with the work surface.

14. (Cancelled) Cancelled without prejudice.

15. (Currently Amended) ~~The~~ A test probe comprising~~of claim 14, wherein~~:

first and second signal probe tips, the first and second signal probe tips have respective first and second contact areas; and

a single ground structure fixed between the first and second probe tips, the single ground structure including ~~includes~~ a ground contact area which is greater than at least one of the first and second contact areas.

16. (Currently Amended) The test probe of claim 15 ~~14~~, wherein the ground structure includes a ground contact surface and non-contact surface substantially parallel to the ground contact surface and offset from the contact surface.

17. (Previously Presented) A method of testing microwave or high-frequency devices, with each device having at least one signal port, at least one ground pad, and at least one DC input-output pad, the method comprising:

providing a test head comprising two or more signal probe tips, each probe tip having a contact surface area, and a first ground probe having a ground contact surface with a ground contact surface area substantially greater than the contact surface area of

the one signal probe tip, the ground contact surface being positioned between at least two of the signal probe tips;

moving the contact surface of each of the signal probe tips into contact with a signal port of a first one of the devices and the contact surface of the first ground probe into contact with the one ground pad of the first one of the devices, thereby establishing a signal path between two of the signal probe tips positioned on opposite sides of the ground contact surface.

18. (Original) The method of claim 17, further comprising:

measuring or analyzing an electrical signal communicated through the signal probe tip after moving the signal probe tip into contact with the one signal port of the first one of the devices.

19. (Original) The method of claim 18, further comprising:

determining whether the first one of the devices is acceptable or unacceptable based the measurement or analysis of the electrical signal;

moving the signal probe tip into contact with the one signal port of a second one of the devices and the contact surface of the first ground probe into contact with the one ground pad of the second one of the devices;

measuring or analyzing an electrical signal communicated through the signal probe tip after moving the signal probe tip into contact with the one signal port of the second one of the devices; and

determining whether the second one of the devices is acceptable or unacceptable based on the measurement or analysis of the electrical signal;

20. (Cancelled) Cancelled without prejudice.

21. (Cancelled) Cancelled without prejudice.

22. (Cancelled) Cancelled without prejudice.

23. (Cancelled) Cancelled without prejudice.

24. (Cancelled) Cancelled without prejudice.

25. (Previously Presented) A method of testing a device comprising a high-frequency electronic assembly having at least first and second conductive regions, the method comprising:

providing a test head having first and second test-head contacts;

establishing electrical communication between the first test-head contact and the first conductive region and between the second test-head contact and the second conductive region;

sensing electrical communication between the first test-head contact and the first-head conductive region;

automatically introducing a test signal through the second test-head contact into the electronic assembly in response to sensing electrical communication between the first test-head contact and second conductive region.

26. (Original) The method of claim 25, wherein establishing electrical communication between the first test-head contact and the first conductive region comprises establishing a DC current between the first test-head contact and the first conductive region.

27. (Original) The method of claim 26, wherein automatically introducing a test signal through the second test-head contact into the electronic assembly comprises introducing a signal having a frequency greater than one Giga-Hertz.

28. (Original) The method of claim 26, wherein automatically introducing a test signal through the second test-head contact into the electronic assembly comprises introducing the test signal a predetermined time period after sensing electrical communication between the first test-head contact and the first-head conductive region.

29. (Previously Presented) For a surface-mount package having first and second signal ports and a ground pad between the signal ports, a method of establishing an electrical coupling of a predetermined nominal characteristic impedance with at least the first signal ports, the method comprising:

contacting the first signal port with a first electrical conductor;

contacting the ground pad with a ground probe, with the ground probe having a ground contact and a surface overhanging a major surface of the signal port and being substantially parallel to the major surface; and

adjusting the depth of the ground contact thereby positioning the overhanging portion of the ground probe a predetermined distance from the first signal port and establishing a predetermined impedance of the first signal port.

30. (Original) The method of claim 29, wherein the surface of the ground probe overhanging the major surface of the signal port establishes an electrical field perpendicular to the surface of the ground pad and the major surface of the signal port.

31. (Original) A method comprising:

providing a test head having first and second conductive probes for contacting respective conductive portions of a first electronic assembly and establishing a first nominal characteristic impedance; and

changing at least one of the first and second conductive probes to enable the test head to establish a second nominal characteristic impedance different from the first nominal characteristic impedance or to establish the first nominal characteristic impedance with a different arrangement of conductive portions on a second electronic assembly.

32. (Currently Amended) The method of claim 31 [32], wherein changing at least one of the first conductive probes comprises replacing the first conductive probe with a different conductive probe.

33. (Original) The method of claim 32, wherein the first conductive probe is a ground probe.